

**The Reality of  
“A water Short Year.”**

**By Brad Edgerton**

Harlan County Lake is below the 246,000 Acre-feet needed to avoid the Compact Call year trigger set by Nebraska's Integrated Management Plans.

Last year's balance at Guide Rock was slightly negative and Nebraska forecasted the upcoming year to be negative.

January 1<sup>st</sup>: Nebraska informed the NRD that Compact Call Year Administration will be in effect. Well owners in the 10-2 area are notified, “No pumping permitted”!

Closing notices are sent to Reclamation to begin by-passing inflows through all 5 Federal Reservoirs.

Natural flow permit holders are notified that no diversion will be permitted during the Compact Call year.

On January 1<sup>st</sup> Harry Strunk has 25,000 AF and is at 72%; 16,000 AF in storage is available for Irrigation.

Swanson has 44,000 AF and is at 39%; 23,000 AF in storage available for Irrigation.

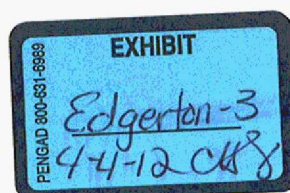
Hugh Butler has 14,000 and is at 38%; 8,800 AF in Storage available for Irrigation.

Enders is at 11,000 AF; with 2,000 AF available for Irrigation.

Harlan County is at 236,000 AF and is at 76% full; 94,000 AF is available for Irrigation between Nebraska (43%) and Kansas Bostwick. (57%) Reclamation's January 1 estimate looks at the current storage content in Harlan County Reservoir and adds 57,600 AF based on the historic inflow January through May as agreed to in the RRC FSS appendix K. However, the surface water controls in the IMP requires the inflow to be by-passed through Harlan County Reservoir, the May 31 final projection would be at or below Reclamation's January projections due to evaporation loss. Under the Consensus Plan the available storage supply would now be adjusted for a “shared shortage”. Harlan County Reservoir could be drained to elevation 1927.00 and a content of 118 AF to meet the January 1, projection made by Reclamation.

Frenchman Cambridge and Bostwick Nebraska Board of Directors decide to Irrigate with the storage water knowing that all the wells in the alluvial are off and every acre under permit with Bostwick and Frenchman Cambridge will more than likely call for storage water.

The 22, 500 Acres under Nebraska Bostwick call for 41,000 AF and deliver 11 inches per acre.



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All 16,000 AF from Harry stunk is released for Cambridge Canal; 23,000 AF from Swanson and 8,800 AF from Hugh Butler is released for Meeker, Red Willow and Bartley Canals. Nearly every permitted acre of FCID is irrigated and water users apply approximately 6 inches per acre and completely deplete all the irrigation storage water in 3 Federal Reservoirs.

All the non-project natural flow is passed through Harlan County Reservoir as required by the surface water controls with most of the by-pass occurring January to June. Kansas Bostwick has no opportunity to use the natural flow during this period and calls for storage water from Harlan County Reservoir; 11 inches is allocated to KBID and 53,000 AF is released from storage to meet the demand.

Harlan County started at 236,000 AF. No natural flow was stored since Dec. 31,

The 30,000 AF evaporation for the year lowers the Harlan County Reservoir to 206,000 AF.

Kansas Bostwick takes 53,000 AF leaving 153,000 AF

Nebraska Bostwick calls for 41,000 AF for the 22,500 acres leaving Harlan County Reservoir with 112,000 AF

In December Nebraska looks at Harlan County Lake and finds the elevation below 1927.0 assuring future "water short years"!

The two year balance at Guide Rock is positive by 20,000 Acre-Feet. The Call is lifted on Jan 1<sup>st</sup> and all Reservoirs begin storing water again. The inflow into Harlan County is 100 CFS as the first year of well curtailment only produced a small return. By June 30<sup>th</sup> 36,200 AF has arrived at Harlan County Lake which is below the 57,600 AF in appendix K of the FSS; Reclamation declares a water short year for the Compact.

The two year balance is positive so all the wells are back on. Frenchman Cambridge and Bostwick decide not to irrigate because the Reservoirs can only provide approximately 3 inches per acre, Kansas Bostwick takes every drop they are entitled to from Harlan County Reservoir once again lowering the lake to elevation 1927.00

The aquifer in Dundy, Chase, Perkins and Hayes County hit new record levels of decline.

Nebraska may be in compliance but all the Federal Reservoirs are empty and limited surface water supplies are available to offset future groundwater depletions.

The Federal projects and the RRC were designed so the River System would be balanced, the IMPs and excess well development have upset the balance and DNR cannot and will not be able to restore the balance with these plans.

Kansas is not happy with Nebraska's new IMP and aggressively pursues Federal intervention.